



# Understanding climate risk reporting





## Understanding climate risk reporting

Dr. Barry O'Dwyer outlines what you need to know for corporate sustainability reporting.



**The business case for climate risk is clear. There is undeniable scientific evidence of how climate change is already impacting the frequency and intensity of extreme weather events such as heatwaves, droughts, and flooding, and that these events continue to lead to significant adverse societal costs. Between 1980 and 2022, weather- and climate-related extremes caused economic losses estimated at €650 billion in the EU alone, of which €59.4 billion and €52.3 billion occurred in 2021 and 2022, respectively<sup>1</sup>. Such figures highlight the urgent need for robust climate risk management strategies, to mitigate financial losses and societal impacts and to plan effectively for the future.**

Since 1990, the Intergovernmental Panel on Climate Change (IPCC) has published a series of assessment reports of the most up-to-date science and evidence of climate change. The latest one, published last year, shows the global average temperature has increased by 1.1°C when compared with pre-industrial conditions (1850-1900)<sup>2</sup>. Indeed, global climate records were “shattered” in 2023, according to the World Meteorological Organisation, underscoring the accelerating pace of climate change<sup>3</sup>.

Of course Ireland is not immune. Here too we have seen the environmental and economic impacts of the global climate crisis. Met Éireann's Provisional State of the Irish Climate Report 2023 showed that Ireland experienced its warmest year on record<sup>4</sup>. Recent research by the EPA showed that Ireland's climate is changing in line with global trends, with an increase in annual average temperature of 0.9°C between 1900 and 2018<sup>5</sup>. These national trends reflect the broader global climate crisis, emphasising the need for Ireland to adopt comprehensive climate adaptation and mitigation strategies.

### Climate risk policy landscape: CSRD, EUT and TCFD

The sustainability reporting landscape continues to rapidly evolve. A recent KPMG report found that the share of Irish N100 companies reporting on sustainability in the Republic of Ireland has steadily increased from 78 per cent in 2017 to 95 per cent in 2022<sup>6</sup>. In line with this, there is an increasing recognition from Irish companies of the importance of understanding current and emerging climate risks. The requirements of the Corporate Sustainability Reporting Directive (CSRD) for companies to conduct climate scenario analysis will see an even more heightened focus on climate risk assessment and adaptation measures over the coming years.

The climate risk policy landscape has also evolved significantly over the past 10 years. Historically, the Task Force on Climate-Related Financial Disclosures (TCFD) has served as the primary driver for climate risk reporting across Europe. Established in 2015 by the Financial Stability Board, an international body that monitors and makes recommendations about the global financial system, the TCFD assists businesses in disclosing climate-related risks and opportunities in their reporting. A KPMG report found that TCFD adoption almost doubled between 2020 and 2022, going from 37 per cent to 61 per cent among the G250 – estimated to be the world's 250 largest companies by revenue<sup>7</sup>. However, while G7 nations agreed to mandate TCFD-aligned climate-related financial reporting, the TCFD remains voluntary across the EU.



<sup>1</sup> [European Environment Agency, Economic losses from weather- and climate-related extremes in Europe](#)  
<sup>2</sup> [IPCC, 2023: Summary for Policymakers](#)  
<sup>3</sup> [World Meteorological Organisation, 2023 shatters climate records, with major impacts](#)  
<sup>4</sup> [Provisional State of the Irish Climate Report 2023](#)  
<sup>5</sup> [EPA, The Status of Ireland's Climate, 2020](#)  
<sup>6</sup> [KPMG Ireland's biennial Survey of Sustainability Reporting 2022](#)  
<sup>7</sup> [KPMG Global, Key global trends in sustainability reporting](#)





In response to a recognised need for a more comprehensive and standardised reporting framework, the European Union proposed the CSRD in 2021. The Directive has seen a significant increase in the number of companies subject to EU sustainability requirements, with approximately 50,000 organisations mandated to report under it. Companies are subject to the reporting obligation under the CSRD if they meet at least two of the following three criteria on two consecutive balance sheet dates, that is more than 250 employees, annual sales of more than €50 million, or a total balance sheet of greater than €25 million.

Underpinning the CSRD, the European Sustainability Reporting Standards (ESRSs) outline the mandatory reporting requirements. There are 12 ESRSs and they require companies to provide information on their governance and strategy to address material sustainability topics; on the impacts, risks, and opportunities arising from those topics; and on quantitative metrics and targets.

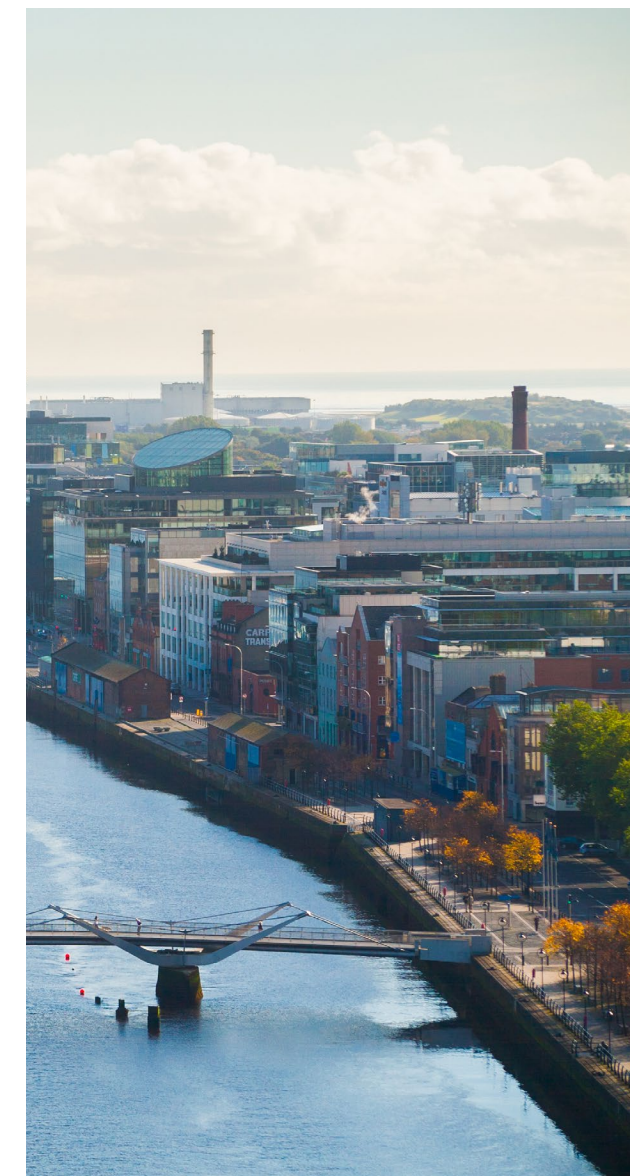
ESRS E1, which is Climate Change, requires companies to disclose climate-related risks and opportunities using scenario analysis. The CSRD's guidance on climate disclosures aligns with the four pillars of the TCFD and further extends to strategic actions through ESRS

E1-E12. Specifically, ESRS E1 encourages companies to develop comprehensive transition plans (E1-E4), set clear sustainability targets (E5-E8), disclose greenhouse gas emissions along with other climate-related information (E9-E12), and assess and report on the financial effects of climate change on their operations. These steps are crucial for businesses in understanding their impact on climate change, benchmarking their performance against others, and supporting sustainable development aligned with 1.5°C-targeted efforts.

Another piece of EU legislation that requires companies to assess the exposures of their business activities to climate related risks is the EU Taxonomy. It applies to those companies in scope for the CSRD and its purpose is to provide a robust, science-based classification system for "sustainable" activities that are aligned with the environmental and social values of the Green Deal, and which do no harm to any other environmental objective. This classification system requires companies to meet ambitious scientifically binary criteria in order to classify their business activities as sustainable, in order to allow companies and investors to make truly sustainable investment decisions. An activity is considered environmentally sustainable, if it makes a substantial contribution to at least one of the following

objectives, including climate change mitigation, climate change adaptation, the sustainable use and protection of water and marine resources, the transition to a circular economy and pollution prevention and control. It also includes the protection and restoration of biodiversity and ecosystem while, at the same time, doing 'no significant harm' to any of them.

CSRD and the EU Taxonomy can be viewed as a 'package', as reporting on the EU Taxonomy will be required under the CSRD. The climate risk assessments between the two directives can be distinguished by the type of risks assessed. The CSRD scenario analysis requires companies to assess both physical and transition risks and opportunities. On the other hand the EU Taxonomy requires a climate risk assessment that includes only physical risks.



## Quantification of physical and transition risks

**The TCFD recommendations provided the first in-depth guidance to businesses on identifying and assessing climate-related risks and how these can impact financial performance. The recommendations encouraged a step change in the expectations of disclosure to the market and, consequently, the attention that the disclosures will get from investors and wider stakeholders. Similarly, through the CSRD, companies meeting the criteria are also now required to conduct climate scenario analysis under ESRS. The aim is to determine how a company could potentially be affected under a range of climate scenarios and to identify potential physical and transition climate risks and opportunities. The methodologies and depth of analysis from these reporting frameworks require engagement with all aspects of the business and an understanding of the best available science and climate data.**

Physical risks are those that arise as a direct result of the changes in weather and climate, for example extreme weather events or declining water reserves. 'Acute Physical Risks' refer to those that are event-driven, including increased severity of extreme weather events, such as cyclones, hurricanes, or floods. 'Chronic Risks' refer to longer-term shifts in climate patterns, such as rising sea levels, changing patterns of rainfall and increases in average temperatures.

On the other hand, transition risks are those that arise due to changes in legislation, market forces, or technological changes as we move towards a zero-carbon economy. Transitioning to a lower-carbon economy may entail extensive policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change. These risks will depend greatly on the nature, speed, and focus of these changes, potentially posing varying levels of financial and reputational risk to organisations.

The structure of the requirements from the TCFD and CSRD reflect the fact that understanding climate risk is now a board-level issue and requires engagement from a range of business units – from operations, logistics, supply-chains, and procurement all the way to the C-suite. Undertaking scenario analysis can help you explore and develop an understanding of how the risks and opportunities of climate change might impact your business over time. By using insights from climate scenarios, market trends and regulation, KPMG can help you identify and quantify those risks. It's about supporting your journey to compliance with relevant climate-related reporting frameworks, and helping you identify the mitigation strategies that will future-proof your business - and enhance its operational resilience.





## A climate journey roadmap to meet the ESRS E1 disclosure requirements

KPMG have developed a climate framework that helps organisations embed climate thinking into their decision-making processes, enabling them to meet the ESRS E1 Climate Change disclosure requirements. This roadmap, shown below, guides organisations towards CSRD-aligned disclosure, demonstrating their commitment to sustainability and building trust with their stakeholders.

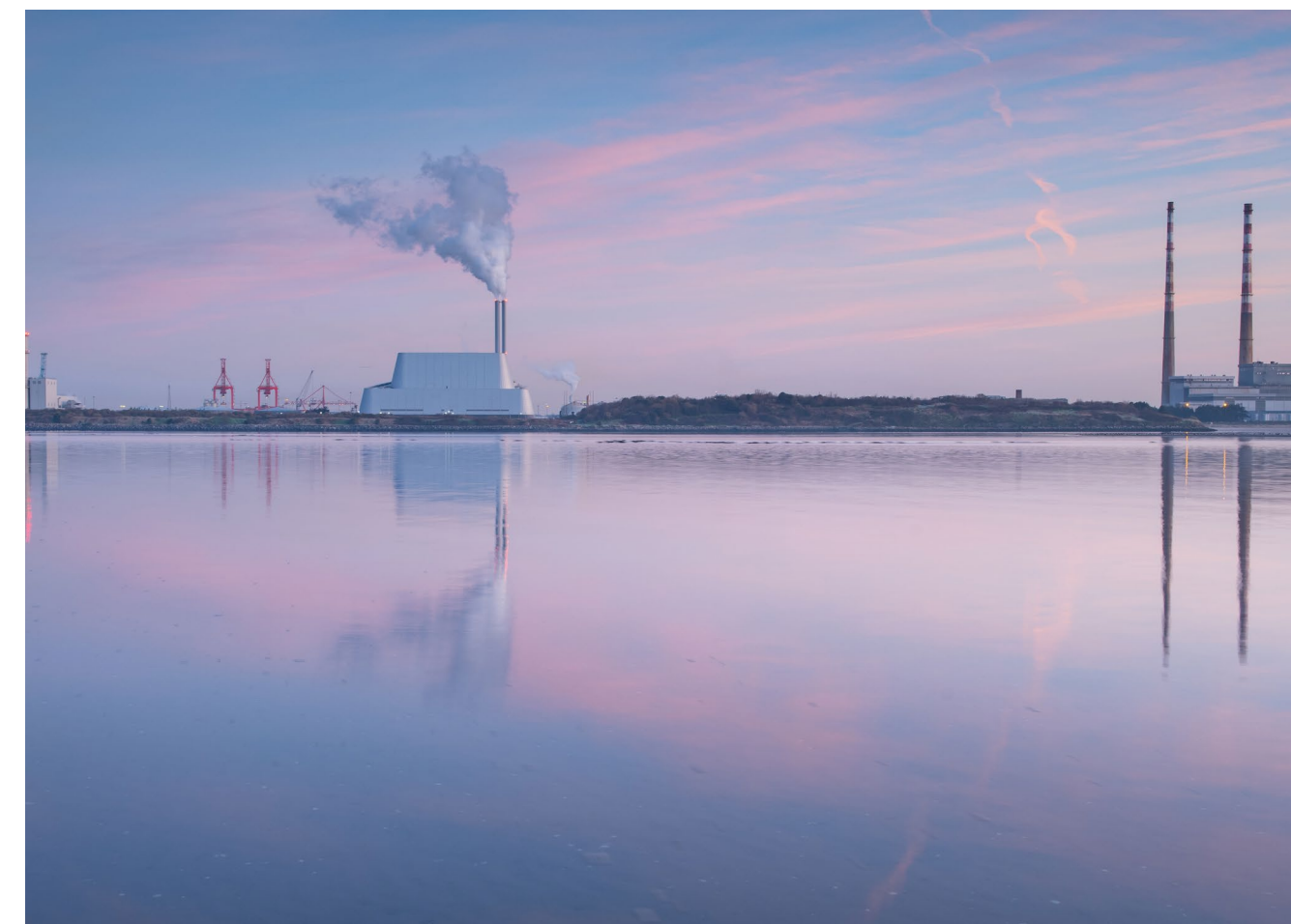


## Tips & Tricks to start your climate reporting journey

**We are at a pivotal moment in our global response to climate change, and this uncertainty requires businesses to plan for multiple scenarios reflecting the trajectory of global emissions. For example, risks will differ greatly depending on whether we experience a 1.5°C “warming pathway” in line with the Paris Agreement, or a 4°C “warming pathway” (if emissions go unmitigated). At the macro-level, these scenarios will dictate impacts to GDP, the price of carbon, and even population growth. At the business level, these scenarios dictate magnitude and severity of physical and transition risks.**

Nobody knows the risks and opportunities of a business better than its people. This is why, in addition to employing the best available and most up-to-date scientific methodologies for climate-related physical risk assessment and scenario analysis, our approach to climate risk assessment involves systematic stakeholder engagement to identify the full universe of climate-related risks and opportunities for your business. By engaging with key personnel and stakeholders, facilitating education workshops and information sessions across the business (from operational staff to C-suite), KPMG Sustainable Futures can support the upskilling of your staff. Key topics include the scientific methodologies required to be compliant with relevant reporting frameworks and the internal systems needed to effectively identify, manage and monitor risks and exploit opportunities. Our expert team breaks down the complexity of the methodologies, reporting frameworks and data needs, making them directly applicable to your business.

There are also a range of external factors that influence the frequency and intensity of climate-related risks and opportunities to businesses and organisations - Political, Economic, Social, Technological, Environmental and Legal (PESTEL). Our team can support you in employing PESTEL analysis to understand how these factors interact with the relevant risks to your business.



To get started with your climate reporting journey, we recommend the following actions:

### 1. Empowering your organisation

Start with a training course on CSRD requirements, climate risk and GHG accounting concepts and with gaining an understanding of competitors’ best practices. Early training and preparation on climate risk concepts, CSRD ESRS E1 requirements, and peers’ best practices can help organisations to build a solid foundation of knowledge. It can then identify and assess climate-related risks and opportunities, identify the data and system needed for reporting and learn from the experiences of others.

### 3. From understanding to quantification

Prioritise a qualitative analysis to thoroughly understand your organisation’s exposure to climate change and energy transition. Identify potential impacts, including market changes, risks and opportunities. This approach creates a strong foundation of accurate and meaningful quantification efforts, enabling you to proactively address climate change and energy transition impacts.

### 5. Phased approach

Organisations could use the phase-in of the ESRS E1-9 to build capacity and transition gradually to quantitative reporting. Start with a scenario analysis and qualitative assessment to identify material risks and potential opportunities related to climate change. Gradually increase capacity and transition in quantitative reporting. This approach effectively enables prioritisation of actions and allocation of resources, leading to a proactive response to climate change.



### 2. Streamline your climate disclosures

Conduct a gap assessment and streamline available information from previous disclosures in order to comply with the requirements of the ESRS and relevant EU legislation and regulations, such as the EU Climate Law, Climate Benchmark Standards Regulation, Sustainable Finance Disclosure Regulation (SFDR), EU Taxonomy, and EBA Pillar 3 disclosure requirements. Additionally, consider frameworks, such as the Task Force on Climate-related Financial Disclosures’ to TCFD, International Financial Reporting Standards (IFRS), and the Science Based Targets initiative (SBTi) to ensure comprehensive coverage and reliable reporting.

### 4. Grounding reliable climate reporting

Develop reliable climate reporting by grounding your qualitative assessment on a solid qualitative foundation. Thoroughly understand your organisation’s susceptibility to climate change in order to identify risks and opportunities accurately. This is instrumental to meeting CSRD requirements and to enhance stakeholder trust. Prioritise creating reliable reports based on a qualitative understanding. This helps you identify areas for value creation and integrate long-term strategic thinking in your business.

## What does this all mean for businesses?

**Businesses are at a critical juncture in addressing climate change, driven by evolving policies and reporting frameworks like the CSRD and TCFD. These frameworks require companies to conduct detailed climate risk assessments and scenario analyses, integrating climate considerations into their strategies. This involves understanding both physical risks (like extreme weather events) and transition risks (such as regulatory changes) that could impact their operations.**

The increasing focus on sustainability reporting means businesses must engage with stakeholders, upskill their staff, and employ scientific methodologies to identify and manage climate-related risks and opportunities. Compliance with these frameworks not only demonstrates responsibility but also enhances operational resilience and builds trust with stakeholders.

Ultimately, businesses need to be proactive in their climate strategies to remain competitive and contribute to global efforts to mitigate climate change.



# Get in touch

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Our multidisciplinary team includes sustainability practitioners, economists, engineers, corporate strategists, accountants, and financiers, working together to help clients navigate the complex and fast-evolving climate change and sustainability agenda.

Whether your organisation is just beginning its sustainability journey, reporting on its progress, or financing new initiatives, we have the knowledge and the people to support you.

If you have any queries related to climate risk reporting or require assistance on any aspect of your climate scenario analysis; contact our team below. We'd be delighted to hear from you.



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